

# Using Meta-synthesis in a Narrative Review: Lessons and Reflections

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## ABSTRACT

The systematic review is a secondary data study that has been burgeoning for the past decades. Unprecedented global crisis such as the Covid-19 pandemic has ushered qualitative ways of conducting a systematic review to a new dawn, as fieldwork research and social interactions are put on halt. Meta-synthesis as a method of qualitatively analysing evidence in the literature has been used in health professions research. Still, its use is limited compared to a better-established method such as meta-ethnography. In this paper, we would like to share our experience of using meta-synthesis in the analysis of a systematic review study on clinical reasoning teaching and learning in undergraduate primary care medical education. The protocol for this systematic review study was registered, peer-reviewed, and published with the Best Evidence in Medical Education (BEME) website. Six review questions guided the data mining. Data of the included studies were extracted using a pro forma based on a set of priorities. Meta-synthesis was conducted in three orders of synthesis. First-order involved describing findings based on the review questions. Second-order accrued inductive thematic analysis using the constant-comparative methodology. We were being deliberate when choosing a qualitative paper as the first anchor study for this phase due to the richness of its findings. Third-order synthesis used a deductive approach of mapping out themes from the ten steps of the transformative learning theory cycle (the codes), with evidence from the included literature. We also inferred facilitators and barriers to transformative learning in clinical reasoning within the primary care context. At the end of the synthesis process, we reflected on our experience of using meta-synthesis, focusing on its utility, feasibility, strengths, and limitations. Based on our experience, the utility of meta-synthesis as a method of analysing systematic reviews was encouraging. It provided us with the ability to interpret and integrate findings from qualitative, quantitative, and mixed-method research. Given the exploratory nature of our systematic review, the use of a narrative synthesis was deliberate. However, because meta-synthesis was less used by qualitative reviewers, there was a sense of vulnerability and uncertainty about what the final output should look like. These precarious feelings were overcome with the structure of three order synthesis, that allowed for a systematic data analysis. The iterative exercise of the constant-comparison method ensured rigour. Further, a guiding theoretical framework also allowed us to balance between achieving the bigger picture research objectives, with emerging knowledge that was meaningful. The limitation to this method was that it was a protracted process, and can only be achieved with adhering to the structure, good planning, diligence, and patience. In conclusion, we share the use of meta-synthesis as a feasible method of qualitative review analysis of heterogeneous studies. Its utility is enhanced with the integrative and interpretive nature of its process. Meta-synthesis promises an alternative to other methods for qualitative researchers is embarking on systematic review projects, not just for health professions educators, but beyond.

**Keywords:** systematic review, narrative synthesis, meta-synthesis, primary care, medical education.